

G. EWOLDT

RAW SEQUENCE LISTING
PATENT APPLICATION: US/08/833,838

DATE: 05/10/2000
TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

```
C--> 3 (1) GENERAL INFORMATION:  
C--> 5     (i) APPLICANT: BRUCE D. GAYNOR, BETTY A. DIAMOND,  
       6             MATTHEW D. SCHARFF AND PHILIPPE VALADON  
C--> 8     (ii) TITLE OF INVENTION: PEPTIDES FOR THE TREATMENT AND  
       9             DIAGNOSIS OF SYSTEMIC LUPUS  
      10             ERYTHEMATOSUS  
C--> 12    (iii) NUMBER OF SEQUENCES: 7  
C--> 14    (iv) CORRESPONDENCE ADDRESS:  
C--> 15        (A) ADDRESSEE: AMSTER, ROTHSTEIN & EBENSTEIN  
C--> 16        (B) STREET: 90 PARK AVENUE  
C--> 17        (C) CITY: NEW YORK  
C--> 18        (D) STATE: NEW YORK  
C--> 19        (E) COUNTRY: U.S.A.  
C--> 20        (F) ZIP: 10016  
C--> 22    (v) COMPUTER READABLE FORM:  
C--> 23        (A) MEDIUM TYPE: 3.5 INCH 1.44 Mb STORAGE DISKETTE  
C--> 24        (B) COMPUTER: IBM PC COMPATIBLE  
C--> 25        (C) OPERATING SYSTEM: MS-DOS  
C--> 26        (D) SOFTWARE: ASCII  
C--> 28    (vi) CURRENT APPLICATION DATA:  
C--> 29        (A) APPLICATION NUMBER: US/08/833,838  
C--> 30        (B) FILING DATE: 10-Apr-1997  
C--> 32    (vii) PRIOR APPLICATION DATA:  
C--> 33        (A) APPLICATION NUMBER: 08/531,832  
C--> 34        (B) FILING DATE: SEPTEMBER 20, 1995  
C--> 37    (viii) ATTORNEY/AGENT INFORMATION:  
C--> 38        (A) NAME: CRAIG J. ARNOLD  
C--> 39        (B) REGISTRATION NUMBER: 34,287  
C--> 40        (C) REFERENCE/DOCKET NUMBER: 96700/342  
C--> 42    (ix) TELECOMMUNICATION INFORMATION:  
C--> 43        (A) TELEPHONE: (212) 697-5995  
C--> 44        (B) TELEFAX: (212) 286-0854 or 286-0082  
C--> 45        (C) TELEX: TWX 710-581-4766
```

ENTERED

ERRORED SEQUENCES

```
C--> 47 (2) INFORMATION FOR SEQ ID NO: 1  
C--> 49     (i) SEQUENCE CHARACTERISTICS:  
C--> 50        (A) LENGTH: 10  
C--> 51        (B) TYPE: AMINO ACID  
C--> 52        (C) STRANDEDNESS: SINGLE  
C--> 53        (D) TOPOLOGY: LINEAR  
W--> 55     (ii) MOLECULE TYPE:  
C--> 56        (A) DESCRIPTION: PEPTIDE  
C--> 58     (iii) HYPOTHETICAL: YES  
C--> 60     (iv) ANTI-SENSE: NO
```

RAW SEQUENCE LISTING DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

C--> 62 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1
64 Asp Trp Glu Tyr Ser Val Trp Leu Ser Asn
65 1 5 10
68 (3) INFORMATION FOR SEQ ID NO: 2
E--> 70 (i) SEQUENCE CHARACTERISTICS:
71 (A) LENGTH: 6
E--> 72 (B) TYPE: AMINO ACID
E--> 73 (C) STRANDEDNESS: SINGLE
E--> 74 (D) TOPOLOGY: LINEAR
E--> 76 (ii) MOLECULE TYPE:
E--> 77 (A) DESCRIPTION: PEPTIDE
E--> 79 (iii) HYPOTHETICAL: YES
E--> 81 (iv) ANTI-SENSE: NO
E--> 83 (ix) FEATURE:
E--> 84 (A) NAME/KEY:
E--> 85 (B) LOCATION:
E--> 86 (C) IDENTIFICATION METHOD:
E--> 87 (D) OTHER INFORMATION: Xaa at 1 and 4 is any amino
E--> 88 acid
90 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2
E--> 92 Xaa Gly Trp Xaa Arg Val
E--> 93 1 5
95 (4) INFORMATION FOR SEQ ID NO: 3
E--> 97 (i) SEQUENCE CHARACTERISTICS:
98 (A) LENGTH: 6
E--> 99 (B) TYPE: AMINO ACID
E--> 100 (D) TOPOLOGY: LINEAR
E--> 102 (ii) MOLECULE TYPE:
E--> 103 (A) DESCRIPTION: PEPTIDE
E--> 105 (iii) HYPOTHETICAL: YES
E--> 107 (ix) FEATURE:
E--> 108 (A) NAME/KEY:
E--> 109 (B) LOCATION:
E--> 110 (C) IDENTIFICATION METHOD:
E--> 111 (D) OTHER INFORMATION: Xaa at 1, 3 and 6 is any
E--> 112 amino acid
114 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3
E--> 116 Xaa Trp Xaa Tyr His Xaa
E--> 117 1 5
119 (5) INFORMATION FOR SEQ ID NO: 4
E--> 121 (i) SEQUENCE CHARACTERISTICS:
122 (A) LENGTH: 5
E--> 123 (B) TYPE: AMINO ACID
E--> 124 (D) TOPOLOGY: LINEAR
E--> 126 (ii) MOLECULE TYPE:
E--> 127 (A) DESCRIPTION: PEPTIDE
E--> 129 (iii) HYPOTHETICAL: YES
E--> 131 (ix) FEATURE:
E--> 132 (A) NAME/KEY:

RAW SEQUENCE LISTING DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

E--> 133 (B) LOCATION:
E--> 134 (C) IDENTIFICATION METHOD:
E--> 135 (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 136 Acid or Glutamic Acid; Xaa at 5 is Glycine
E--> 137 or Serine
139 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4
E--> 141 Xaa Trp Xaa Tyr Xaa
E--> 142 1 5
145 (6) INFORMATION FOR SEQ ID NO: 5
E--> 147 (i) SEQUENCE CHARACTERISTICS:
148 (A) LENGTH: 6
E--> 149 (B) TYPE: AMINO ACID
E--> 150 (D) TOPOLOGY: LINEAR
E--> 152 (ii) MOLECULE TYPE:
E--> 153 (A) DESCRIPTION: PEPTIDE
E--> 155 (iii) HYPOTHETICAL: YES
E--> 157 (ix) FEATURE:
E--> 158 (A) NAME/KEY:
E--> 159 (B) LOCATION:
E--> 160 (C) IDENTIFICATION METHOD:
E--> 161 (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 162 Acid or Glutamic Acid
164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5
E--> 166 Xaa GLY Xaa Trp Pro Arg
E--> 167 1 5
170 (7) INFORMATION FOR SEQ ID NO: 6
E--> 172 (i) SEQUENCE CHARACTERISTICS:
173 (A) LENGTH: 25
E--> 174 (B) TYPE: AMINO ACID
E--> 175 (D) TOPOLOGY: LINEAR
E--> 177 (ii) MOLECULE TYPE:
E--> 178 (A) DESCRIPTION: PEPTIDE
E--> 180 (iii) HYPOTHETICAL: YES
E--> 182 (ix) FEATURE:
E--> 183 (A) NAME/KEY:
E--> 184 (B) LOCATION:
E--> 185 (C) IDENTIFICATION METHOD:
E--> 186 (D) OTHER INFORMATION: Xaa at 7-16 is any amino acid
188 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6
E--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
E--> 191 1 5 10 15
193 Gly Ala Pro Ser Gly Ala Glu Thr Val
E--> 194 20 25
197 (8) INFORMATION FOR SEQ ID NO: 7
E--> 199 (i) SEQUENCE CHARACTERISTICS:
200 (A) LENGTH: 10
E--> 201 (B) TYPE: AMINO ACID
E--> 202 (D) TOPOLOGY: LINEAR
E--> 204 (ii) MOLECULE TYPE:

RAW SEQUENCE LISTING DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

E--> 205 (A) DESCRIPTION: PEPTIDE
E--> 207 (iii) HYPOTHETICAL: YES
209 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7
E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212 1 5 10
C--> 68 (2) INFORMATION FOR SEQ ID NO: 2
C--> 70 (i) SEQUENCE CHARACTERISTICS:
C--> 71 (A) LENGTH: 6
C--> 72 (B) TYPE: AMINO ACID
C--> 73 (C) STRANDEDNESS: SINGLE
C--> 74 (D) TOPOLOGY: LINEAR
W--> 76 (ii) MOLECULE TYPE:
C--> 77 (A) DESCRIPTION: PEPTIDE
C--> 79 (iii) HYPOTHETICAL: YES
C--> 81 (iv) ANTI-SENSE: NO
C--> 83 (ix) FEATURE:
C--> 84 (A) NAME/KEY:
C--> 85 (B) LOCATION:
C--> 86 (C) IDENTIFICATION METHOD:
C--> 87 (D) OTHER INFORMATION: Xaa at 1 and 4 is any amino
C--> 88 acid
C--> 90 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2
W--> 92 Xaa Gly Trp Xaa Arg Val
93 1 5
95 (4) INFORMATION FOR SEQ ID NO: 3
E--> 97 (i) SEQUENCE CHARACTERISTICS:
98 (A) LENGTH: 6
E--> 99 (B) TYPE: AMINO ACID
E--> 100 (D) TOPOLOGY: LINEAR
E--> 102 (ii) MOLECULE TYPE:
E--> 103 (A) DESCRIPTION: PEPTIDE
E--> 105 (iii) HYPOTHETICAL: YES
E--> 107 (ix) FEATURE:
E--> 108 (A) NAME/KEY:
E--> 109 (B) LOCATION:
E--> 110 (C) IDENTIFICATION METHOD:
E--> 111 (D) OTHER INFORMATION: Xaa at 1, 3 and 6 is any
E--> 112 amino acid
114 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3
E--> 116 Xaa Trp Xaa Tyr His Xaa
E--> 117 1 5
119 (5) INFORMATION FOR SEQ ID NO: 4
E--> 121 (i) SEQUENCE CHARACTERISTICS:
122 (A) LENGTH: 5
E--> 123 (B) TYPE: AMINO ACID
E--> 124 (D) TOPOLOGY: LINEAR
E--> 126 (ii) MOLECULE TYPE:
E--> 127 (A) DESCRIPTION: PEPTIDE
E--> 129 (iii) HYPOTHETICAL: YES

RAW SEQUENCE LISTING DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

```

E--> 131      (ix)  FEATURE:
E--> 132          (A)  NAME/KEY:
E--> 133          (B)  LOCATION:
E--> 134          (C)  IDENTIFICATION METHOD:
E--> 135          (D)  OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 136              Acid or Glutamic Acid; Xaa at 5 is Glycine
E--> 137              or Serine
139      (xi)  SEQUENCE DESCRIPTION: SEQ ID NO: 4
E--> 141 Xaa Trp Xaa Tyr Xaa
E--> 142      1          5
145 (6)  INFORMATION FOR SEQ ID NO: 5
E--> 147      (i)  SEQUENCE CHARACTERISTICS:
148          (A)  LENGTH: 6
E--> 149          (B)  TYPE: AMINO ACID
E--> 150          (D)  TOPOLOGY: LINEAR
E--> 152      (ii)  MOLECULE TYPE:
E--> 153          (A)  DESCRIPTION: PEPTIDE
E--> 155      (iii) HYPOTHETICAL: YES
E--> 157      (ix)  FEATURE:
E--> 158          (A)  NAME/KEY:
E--> 159          (B)  LOCATION:
E--> 160          (C)  IDENTIFICATION METHOD:
E--> 161          (D)  OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 162              Acid or Glutamic Acid
164      (xi)  SEQUENCE DESCRIPTION: SEQ ID NO: 5
E--> 166 Xaa Gly Xaa Trp Pro Arg
E--> 167      1          5
170 (7)  INFORMATION FOR SEQ ID NO: 6
E--> 172      (i)  SEQUENCE CHARACTERISTICS:
173          (A)  LENGTH: 25
E--> 174          (B)  TYPE: AMINO ACID
E--> 175          (D)  TOPOLOGY: LINEAR
E--> 177      (ii)  MOLECULE TYPE:
E--> 178          (A)  DESCRIPTION: PEPTIDE
E--> 180      (iii) HYPOTHETICAL: YES
E--> 182      (ix)  FEATURE:
E--> 183          (A)  NAME/KEY:
E--> 184          (B)  LOCATION:
E--> 185          (C)  IDENTIFICATION METHOD:
E--> 186          (D)  OTHER INFORMATION: Xaa at 7-16 is any amino acid
188      (xi)  SEQUENCE DESCRIPTION: SEQ ID NO: 6
E--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
E--> 191      1          5          10          15
193 Gly Ala Pro Ser Gly Ala Glu Thr Val
E--> 194          20          25
197 (8)  INFORMATION FOR SEQ ID NO: 7
E--> 199      (i)  SEQUENCE CHARACTERISTICS:
200          (A)  LENGTH: 10
E--> 201          (B)  TYPE: AMINO ACID

```

RAW SEQUENCE LISTING DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

```

E--> 202      (D) TOPOLOGY: LINEAR
E--> 204      (ii) MOLECULE TYPE:
E--> 205      (A) DESCRIPTION: PEPTIDE
E--> 207      (iii) HYPOTHETICAL: YES
209      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7
E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212     1           5           10
C--> 95 (2) INFORMATION FOR SEQ ID NO: 3
C--> 97      (i) SEQUENCE CHARACTERISTICS:
C--> 98      (A) LENGTH: 6
C--> 99      (B) TYPE: AMINO ACID
C--> 100     (D) TOPOLOGY: LINEAR
W--> 102      (ii) MOLECULE TYPE:
C--> 103     (A) DESCRIPTION: PEPTIDE
C--> 105      (iii) HYPOTHETICAL: YES
C--> 107      (ix) FEATURE:
C--> 108      (A) NAME/KEY:
C--> 109      (B) LOCATION:
C--> 110      (C) IDENTIFICATION METHOD:
C--> 111      (D) OTHER INFORMATION: Xaa at 1, 3 and 6 is any
C--> 112 amino acid
C--> 114      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3
W--> 116 Xaa Trp Xaa Tyr His Xaa
117     1           5
119 (5) INFORMATION FOR SEQ ID NO: 4
E--> 121      (i) SEQUENCE CHARACTERISTICS:
122      (A) LENGTH: 5
E--> 123      (B) TYPE: AMINO ACID
E--> 124      (D) TOPOLOGY: LINEAR
E--> 126      (ii) MOLECULE TYPE:
E--> 127      (A) DESCRIPTION: PEPTIDE
E--> 129      (iii) HYPOTHETICAL: YES
E--> 131      (ix) FEATURE:
E--> 132      (A) NAME/KEY:
E--> 133      (B) LOCATION:
E--> 134      (C) IDENTIFICATION METHOD:
E--> 135      (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 136          Acid or Glutamic Acid; Xaa at 5 is Glycine
E--> 137          or Serine
139      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4
E--> 141 Xaa Trp Xaa Tyr Xaa
E--> 142     1           5
145 (6) INFORMATION FOR SEQ ID NO: 5
E--> 147      (i) SEQUENCE CHARACTERISTICS:
148      (A) LENGTH: 6
E--> 149      (B) TYPE: AMINO ACID
E--> 150      (D) TOPOLOGY: LINEAR
E--> 152      (ii) MOLECULE TYPE:
E--> 153      (A) DESCRIPTION: PEPTIDE

```

RAW SEQUENCE LISTING DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

```

E--> 155      (iii) HYPOTHETICAL: YES
E--> 157      (ix) FEATURE:
E--> 158          (A) NAME/KEY:
E--> 159          (B) LOCATION:
E--> 160          (C) IDENTIFICATION METHOD:
E--> 161          (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 162          Acid or Glutamic Acid
164      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5
E--> 166 Xaa Gly Xaa Trp Pro Arg
E--> 167      1           5
170 (7) INFORMATION FOR SEQ ID NO: 6
E--> 172      (i) SEQUENCE CHARACTERISTICS:
173          (A) LENGTH: 25
E--> 174          (B) TYPE: AMINO ACID
E--> 175          (D) TOPOLOGY: LINEAR
E--> 177      (ii) MOLECULE TYPE:
E--> 178          (A) DESCRIPTION: PEPTIDE
E--> 180      (iii) HYPOTHETICAL: YES
E--> 182      (ix) FEATURE:
E--> 183          (A) NAME/KEY:
E--> 184          (B) LOCATION:
E--> 185          (C) IDENTIFICATION METHOD:
E--> 186          (D) OTHER INFORMATION: Xaa at 7-16 is any amino acid
188      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6
E--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
E--> 191      1           5           10           15
193 Gly Ala Pro Ser Gly Ala Glu Thr Val
E--> 194          20           25
197 (8) INFORMATION FOR SEQ ID NO: 7
E--> 199      (i) SEQUENCE CHARACTERISTICS:
200          (A) LENGTH: 10
E--> 201          (B) TYPE: AMINO ACID
E--> 202          (D) TOPOLOGY: LINEAR
E--> 204      (ii) MOLECULE TYPE:
E--> 205          (A) DESCRIPTION: PEPTIDE
E--> 207      (iii) HYPOTHETICAL: YES
209      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7
E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212      1           5           10
C--> 119 (2) INFORMATION FOR SEQ ID NO: 4
C--> 121      (i) SEQUENCE CHARACTERISTICS:
C--> 122          (A) LENGTH: 5
C--> 123          (B) TYPE: AMINO ACID
C--> 124          (D) TOPOLOGY: LINEAR
W--> 126      (ii) MOLECULE TYPE:
C--> 127          (A) DESCRIPTION: PEPTIDE
C--> 129      (iii) HYPOTHETICAL: YES
C--> 131      (ix) FEATURE:
C--> 132          (A) NAME/KEY:

```

RAW SEQUENCE LISTING DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

C--> 133 (B) LOCATION:
C--> 134 (C) IDENTIFICATION METHOD:
C--> 135 (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
C--> 136 Acid or Glutamic Acid; Xaa at 5 is Glycine
C--> 137 or Serine
C--> 139 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4
W--> 141 Xaa Trp Xaa Tyr Xaa
142 1 5
145 (6) INFORMATION FOR SEQ ID NO: 5
E--> 147 (i) SEQUENCE CHARACTERISTICS:
148 (A) LENGTH: 6
E--> 149 (B) TYPE: AMINO ACID
E--> 150 (D) TOPOLOGY: LINEAR
E--> 152 (ii) MOLECULE TYPE:
E--> 153 (A) DESCRIPTION: PEPTIDE
E--> 155 (iii) HYPOTHETICAL: YES
E--> 157 (ix) FEATURE:
E--> 158 (A) NAME/KEY:
E--> 159 (B) LOCATION:
E--> 160 (C) IDENTIFICATION METHOD:
E--> 161 (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
E--> 162 Acid or Glutamic Acid
164 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5
E--> 166 Xaa Gly Xaa Trp Pro Arg
E--> 167 1 5
170 (7) INFORMATION FOR SEQ ID NO: 6
E--> 172 (i) SEQUENCE CHARACTERISTICS:
173 (A) LENGTH: 25
E--> 174 (B) TYPE: AMINO ACID
E--> 175 (D) TOPOLOGY: LINEAR
E--> 177 (ii) MOLECULE TYPE:
E--> 178 (A) DESCRIPTION: PEPTIDE
E--> 180 (iii) HYPOTHETICAL: YES
E--> 182 (ix) FEATURE:
E--> 183 (A) NAME/KEY:
E--> 184 (B) LOCATION:
E--> 185 (C) IDENTIFICATION METHOD:
E--> 186 (D) OTHER INFORMATION: Xaa at 7-16 is any amino acid
188 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6
E--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
E--> 191 1 5 10 15
193 Gly Ala Pro Ser Gly Ala Glu Thr Val
E--> 194 20 25
197 (8) INFORMATION FOR SEQ ID NO: 7
E--> 199 (i) SEQUENCE CHARACTERISTICS:
200 (A) LENGTH: 10
E--> 201 (B) TYPE: AMINO ACID
E--> 202 (D) TOPOLOGY: LINEAR
E--> 204 (ii) MOLECULE TYPE:

RAW SEQUENCE LISTING DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

```

E--> 205      (A) DESCRIPTION: PEPTIDE
E--> 207      (iii) HYPOTHETICAL: YES
  209      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7
E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212   1           5           10
C--> 145 (2) INFORMATION FOR SEQ ID NO: 5
C--> 147      (i) SEQUENCE CHARACTERISTICS:
C--> 148          (A) LENGTH: 6
C--> 149          (B) TYPE: AMINO ACID
C--> 150          (D) TOPOLOGY: LINEAR
W--> 152      (ii) MOLECULE TYPE:
C--> 153          (A) DESCRIPTION: PEPTIDE
C--> 155      (iii) HYPOTHETICAL: YES
C--> 157      (ix) FEATURE:
C--> 158          (A) NAME/KEY:
C--> 159          (B) LOCATION:
C--> 160          (C) IDENTIFICATION METHOD:
C--> 161          (D) OTHER INFORMATION: Xaa at 1 and 3 is Aspartic
C--> 162 Acid or Glutamic Acid
C--> 164      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 5
W--> 166 Xaa Gly Xaa Trp Pro Arg
  167   1           5
  170 (7) INFORMATION FOR SEQ ID NO: 6
E--> 172      (i) SEQUENCE CHARACTERISTICS:
  173          (A) LENGTH: 25
E--> 174          (B) TYPE: AMINO ACID
E--> 175          (D) TOPOLOGY: LINEAR
E--> 177      (ii) MOLECULE TYPE:
E--> 178          (A) DESCRIPTION: PEPTIDE
E--> 180      (iii) HYPOTHETICAL: YES
E--> 182      (ix) FEATURE:
E--> 183          (A) NAME/KEY:
E--> 184          (B) LOCATION:
E--> 185          (C) IDENTIFICATION METHOD:
E--> 186          (D) OTHER INFORMATION: Xaa at 7-16 is any amino acid
  188      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6
E--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
E--> 191   1           5           10           15
  193 Gly Ala Pro Ser Gly Ala Glu Thr Val
E--> 194          20           25
  197 (8) INFORMATION FOR SEQ ID NO: 7
E--> 199      (i) SEQUENCE CHARACTERISTICS:
  200          (A) LENGTH: 10
E--> 201          (B) TYPE: AMINO ACID
E--> 202          (D) TOPOLOGY: LINEAR
E--> 204      (ii) MOLECULE TYPE:
E--> 205          (A) DESCRIPTION: PEPTIDE
E--> 207      (iii) HYPOTHETICAL: YES
  209      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7

```

RAW SEQUENCE LISTING DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:10

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212 1 5 10
C--> 170 (2) INFORMATION FOR SEQ ID NO: 6
C--> 172 (i) SEQUENCE CHARACTERISTICS:
C--> 173 (A) LENGTH: 25
C--> 174 (B) TYPE: AMINO ACID
C--> 175 (D) TOPOLOGY: LINEAR
W--> 177 (ii) MOLECULE TYPE:
C--> 178 (A) DESCRIPTION: PEPTIDE
C--> 180 (iii) HYPOTHETICAL: YES
C--> 182 (ix) FEATURE:
C--> 183 (A) NAME/KEY:
C--> 184 (B) LOCATION:
C--> 185 (C) IDENTIFICATION METHOD:
C--> 186 (D) OTHER INFORMATION: Xaa at 7-16 is any amino acid
C--> 188 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 6
W--> 190 Ala Asp Gly Ser Gly Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
191 1 5 10 15
193 Gly Ala Pro Ser Gly Ala Glu Thr Val
194 20 25
197 (8) INFORMATION FOR SEQ ID NO: 7
E--> 199 (i) SEQUENCE CHARACTERISTICS:
200 (A) LENGTH: 10
E--> 201 (B) TYPE: AMINO ACID
E--> 202 (D) TOPOLOGY: LINEAR
E--> 204 (ii) MOLECULE TYPE:
E--> 205 (A) DESCRIPTION: PEPTIDE
E--> 207 (iii) HYPOTHETICAL: YES
209 (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7
E--> 211 Arg His Glu Asp Gly Asp Trp Pro Arg Val
E--> 212 1 5 10

VERIFICATION SUMMARY DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:11

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

```

L:3 M:220 C: Keyword misspelled, [(1) GENERAL INFORMATION:]
L:5 M:220 C: Keyword misspelled, [(i) APPLICANT:]
L:8 M:220 C: Keyword misspelled, [(ii) TITLE OF INVENTION:]
L:12 M:220 C: Keyword misspelled, [(iii) NUMBER OF SEQUENCES:]
L:14 M:220 C: Keyword misspelled, [(iv) CORRESPONDENCE ADDRESS:]
L:15 M:220 C: Keyword misspelled, [(A) ADDRESSEE:]
L:16 M:220 C: Keyword misspelled, [(B) STREET:]
L:17 M:220 C: Keyword misspelled, [(C) CITY:]
L:18 M:220 C: Keyword misspelled, [(D) STATE:]
L:19 M:220 C: Keyword misspelled, [(E) COUNTRY:]
L:20 M:220 C: Keyword misspelled, [(F) ZIP:]
L:22 M:220 C: Keyword misspelled, [(V) COMPUTER READABLE FORM:]
L:23 M:220 C: Keyword misspelled, [(A) MEDIUM TYPE:]
L:24 M:220 C: Keyword misspelled, [(B) COMPUTER:]
L:25 M:220 C: Keyword misspelled, [(C) OPERATING SYSTEM:]
L:26 M:220 C: Keyword misspelled, [(D) SOFTWARE:]
L:28 M:220 C: Keyword misspelled, [(vi) CURRENT APPLICATION DATA:]
L:29 M:220 C: Keyword misspelled, [(A) APPLICATION NUMBER:]
L:30 M:220 C: Keyword misspelled, [(B) FILING DATE:]
L:32 M:220 C: Keyword misspelled, [(vii) PRIOR APPLICATION DATA:]
L:33 M:220 C: Keyword misspelled, [(A) APPLICATION NUMBER:]
L:34 M:220 C: Keyword misspelled, [(B) FILING DATE:]
L:37 M:220 C: Keyword misspelled, [(viii) ATTORNEY/AGENT INFORMATION:]
L:38 M:220 C: Keyword misspelled, [(A) NAME:]
L:39 M:220 C: Keyword misspelled, [(B) REGISTRATION NUMBER:]
L:40 M:220 C: Keyword misspelled, [(C) REFERENCE/DOCKET NUMBER:]
L:42 M:220 C: Keyword misspelled, [(ix) TELECOMMUNICATION INFORMATION:]
L:43 M:220 C: Keyword misspelled, [(A) TELEPHONE:]
L:44 M:220 C: Keyword misspelled, [(B) TELEFAX:]
L:45 M:220 C: Keyword misspelled, [(C) TELEX:]
L:47 M:220 C: Keyword misspelled, [(2) INFORMATION FOR SEQ ID NO:]
L:49 M:220 C: Keyword misspelled, [(i) SEQUENCE CHARACTERISTICS:]
L:50 M:220 C: Keyword misspelled, [(A) LENGTH:]
L:51 M:220 C: Keyword misspelled, [(B) TYPE:]
L:52 M:220 C: Keyword misspelled, [(C) STRANDEDNESS:]
L:53 M:220 C: Keyword misspelled, [(D) TOPOLOGY:]
L:55 M:220 C: Keyword misspelled, [(ii) MOLECULE TYPE:]
L:56 M:220 C: Keyword misspelled, [(A) DESCRIPTION:]
L:58 M:220 C: Keyword misspelled, [(iii) HYPOTHETICAL:]
L:60 M:220 C: Keyword misspelled, [(iv) ANTI-SENSE:]
L:62 M:220 C: Keyword misspelled, [(xi) SEQUENCE DESCRIPTION: SEQ ID NO:]
L:55 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1, Value=[ ]
L:70 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:70 M:330 E: (2) Invalid Amino Acid Designator, 3
L:72 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
L:72 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:72 M:330 E: (2) Invalid Amino Acid Designator, 4
M:332 Repeated in SeqNo=1
  
```

VERIFICATION SUMMARY DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:11

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

L:73 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:73 M:330 E: (2) Invalid Amino Acid Designator, 3
L:74 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:74 M:330 E: (2) Invalid Amino Acid Designator, 3
L:76 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:76 M:330 E: (2) Invalid Amino Acid Designator, 3
L:77 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:77 M:330 E: (2) Invalid Amino Acid Designator, 3
L:79 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:79 M:330 E: (2) Invalid Amino Acid Designator, 3
L:81 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:81 M:330 E: (2) Invalid Amino Acid Designator, 3
L:83 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:83 M:330 E: (2) Invalid Amino Acid Designator, 2
L:84 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:84 M:330 E: (2) Invalid Amino Acid Designator, 2
L:85 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:85 M:330 E: (2) Invalid Amino Acid Designator, 2
L:86 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:86 M:330 E: (2) Invalid Amino Acid Designator, 2
L:87 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:87 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:87 M:330 E: (2) Invalid Amino Acid Designator, 8
L:88 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:88 M:330 E: (2) Invalid Amino Acid Designator, 1
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:97 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:97 M:330 E: (2) Invalid Amino Acid Designator, 3
L:99 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:99 M:330 E: (2) Invalid Amino Acid Designator, 4
L:100 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:100 M:330 E: (2) Invalid Amino Acid Designator, 3
L:102 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:102 M:330 E: (2) Invalid Amino Acid Designator, 3
L:103 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:103 M:330 E: (2) Invalid Amino Acid Designator, 3
L:105 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:105 M:330 E: (2) Invalid Amino Acid Designator, 3
L:107 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:107 M:330 E: (2) Invalid Amino Acid Designator, 2
L:108 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:108 M:330 E: (2) Invalid Amino Acid Designator, 2
L:109 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:109 M:330 E: (2) Invalid Amino Acid Designator, 2
L:110 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:110 M:330 E: (2) Invalid Amino Acid Designator, 2
L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:111 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:111 M:330 E: (2) Invalid Amino Acid Designator, 7

VERIFICATION SUMMARY DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:11

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

L:112 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:112 M:330 E: (2) Invalid Amino Acid Designator, 2
L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:121 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:121 M:330 E: (2) Invalid Amino Acid Designator, 3
L:123 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:123 M:330 E: (2) Invalid Amino Acid Designator, 4
L:124 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:124 M:330 E: (2) Invalid Amino Acid Designator, 3
L:126 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:126 M:330 E: (2) Invalid Amino Acid Designator, 3
L:127 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:127 M:330 E: (2) Invalid Amino Acid Designator, 3
L:129 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:129 M:330 E: (2) Invalid Amino Acid Designator, 3
L:131 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:131 M:330 E: (2) Invalid Amino Acid Designator, 2
L:132 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:132 M:330 E: (2) Invalid Amino Acid Designator, 2
L:133 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:133 M:330 E: (2) Invalid Amino Acid Designator, 2
L:134 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:134 M:330 E: (2) Invalid Amino Acid Designator, 2
L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:135 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:135 M:330 E: (2) Invalid Amino Acid Designator, 6
L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:136 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:136 M:330 E: (2) Invalid Amino Acid Designator, 5
L:137 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:137 M:330 E: (2) Invalid Amino Acid Designator, 1
L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:147 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:147 M:330 E: (2) Invalid Amino Acid Designator, 3
L:149 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:149 M:330 E: (2) Invalid Amino Acid Designator, 4
L:150 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:150 M:330 E: (2) Invalid Amino Acid Designator, 3
L:152 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:152 M:330 E: (2) Invalid Amino Acid Designator, 3
L:153 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:153 M:330 E: (2) Invalid Amino Acid Designator, 3
L:155 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:155 M:330 E: (2) Invalid Amino Acid Designator, 3
L:157 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:157 M:330 E: (2) Invalid Amino Acid Designator, 2
L:158 M:333 E: Wrong sequence grouping, Amino acids not in groups!
L:158 M:330 E: (2) Invalid Amino Acid Designator, 2
L:159 M:333 E: Wrong sequence grouping, Amino acids not in groups!

VERIFICATION SUMMARY DATE: 05/10/2000
 PATENT APPLICATION: US/08/833,838 TIME: 11:51:11

Input Set : A:\08833838.txt
 Output Set: N:\CRF3\05092000\H833838.raw

L:159 M:330 E: (2) Invalid Amino Acid Designator, 2
 L:160 M:333 E: Wrong sequence grouping, Amino acids not in groups!
 L:160 M:330 E: (2) Invalid Amino Acid Designator, 2
 L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
 L:161 M:333 E: Wrong sequence grouping, Amino acids not in groups!
 L:161 M:330 E: (2) Invalid Amino Acid Designator, 6
 L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
 L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
 L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
 L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:10 Counted:292
 L:68 M:220 C: Keyword misspelled, [(2) INFORMATION FOR SEQ ID NO:]
 L:70 M:220 C: Keyword misspelled, [(i) SEQUENCE CHARACTERISTICS:]
 L:71 M:220 C: Keyword misspelled, [(A) LENGTH:]
 L:72 M:220 C: Keyword misspelled, [(B) TYPE:]
 L:73 M:220 C: Keyword misspelled, [(C) STRANDEDNESS:]
 L:74 M:220 C: Keyword misspelled, [(D) TOPOLOGY:]
 L:76 M:220 C: Keyword misspelled, [(ii) MOLECULE TYPE:]
 L:77 M:220 C: Keyword misspelled, [(A) DESCRIPTION:]
 L:79 M:220 C: Keyword misspelled, [(iii) HYPOTHETICAL:]
 L:76 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2, Value={}[]
 L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:99 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
 M:332 Repeated in SeqNo=2
 L:111 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
 L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:6 Counted:238
 L:102 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3, Value={}[]
 L:116 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:123 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
 M:332 Repeated in SeqNo=3
 L:135 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:136 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
 L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:6 Counted:194
 L:126 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=4, Value={}[]
 L:141 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
 L:149 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
 M:332 Repeated in SeqNo=4

VERIFICATION SUMMARY DATE: 05/10/2000
PATENT APPLICATION: US/08/833,838 TIME: 11:51:11

Input Set : A:\08833838.txt
Output Set: N:\CRF3\05092000\H833838.raw

L:161 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:5 Counted:142
L:152 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5, Value=[]
L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:174 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
M:332 Repeated in SeqNo=5
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:6 Counted:97
L:177 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6, Value=[]
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6
L:201 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:0
M:332 Repeated in SeqNo=6
L:212 M:203 E: (20) Calc# of Seq. differs from actual, LENGTH:Input:25 Counted:54
L:204 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=7, Value=[]